

REMARKS

The Amendment, filed in response to the Office Action mailed April 2, 2010, is believed to fully address all issues raised in the Action. A favorable reconsideration on the merits and allowance of the application is respectfully requested.

Claims Disposition

Upon entry of the current amendment, which is respectfully requested, claims 1, 4-6, 13-16, 19-21, and 29-37 are all the claims pending in the application.

Claims 1, 16, and 32-37 are amended herein to further clarify one aspect of the invention by replacing “comprising” with “consisting essentially of.” Support for these amendments to claims 1 and 14-20 can be found, for example, Examples 5-8 in Table 4 at page 13-14 of the present specification. No new matter is introduced.

Response to Provisional Obviousness-type Double Patenting Rejection

In the Office Action, claims 1, 2, 4-6, 8, and 13-16 are provisionally rejected on the ground of nonstatutory obviousness type double patenting as being unpatentable over claims 1-4, 6, and 11-14 of copending Application No. 11/579,619 in view of Bastioli et al. (US 5,512,378).

Applicants respectfully request the rejection be held abeyance until the patentable subject matter is determined.

If the claims are found allowable otherwise in light of the accompanying amendments, arguments, and Rule 132 Declaration, and the provisional ODP rejection is the only outstanding rejection, Applicants respectfully request the Examiner to kindly contact Applicants' counsel to file a Terminal Disclaimer, without additional office action.

Response to Rejections under 35 U.S.C. § 103(a)

In the Action, claims 33, 34, 36, and 37 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Bastioli et al.(US 5,512,378) (“Bastioli”) in view of George et al. (US 5,393,804) (“George”) Sanbayashi et al. (US 2002/0160910) (“Sanbayashi”), Sullivan (US 5,382,440) (“Sullivan”), Cassar et al. (US 6,117,229) (“Cassar”) and Kuroda et al. (US 5,786,406) (“Kuroda”).

Claims 4-6, 14-15, 19-22, 30-32, and 35 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Bastioli, George, Sanbayashi, Sullivan, Matsuda, and Kuroda.

Claims 1 and 16 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Bastioli, George, Sanbayashi, Cassar, Matsuda, Kuroda, and Andersen et al. (US 6,030,673) (“Andersen”).

Claims 13 and 29 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Bastioli, George, Sanbayashi, Matsuda, and Sullivan and further in view of Shogren et al. (US 6,146,573) (“Shogren”).

At pages 4-17 of the Action, the Office provides detailed analysis and discussion of the above references, which are not repeated herein.

Applicants respectfully traverse.

Preliminarily, Applicants recognize that the Office continues to rely on Sanbayashi as teaching the claimed amount of titanium dioxide of the present invention. See Paragraph 12, page 6 of the Action.

However, Applicants submit that Sanbayashi is wholly irrelevant to the presently claimed invention and to the cited references of Bastioli and George. Moreover, any allegedly relevant portions of Sanbayashi relied upon by the Office would not lead one of ordinary skill to combine

its teachings with primary references Bastioli and George to arrive at the presently claimed invention because there is insufficient motivation to do so.

Initially, Applicants note that Sanbayashi is directed to photo-functional powder, which is a completely different field of art than the present claims, which are directed to a biodegradable starch bowl. Thus, one skilled in the art of biodegradable starch bowl (or similar) would not look to the teachings of Sanbayashi without a clear nexus or motivation to do so, since Sanbayashi is not even remotely relevant to the technical field of the present invention or to the primary references. However, Sanbayashi fails to provide any such nexus.

In the present Action, two portions of Sanbayashi are referred to as allegedly providing a nexus to the cited primary references. Specifically, the Office refers to the phrase “industrial applicability” in Paragraph [0013] and to claim 27 of Sanbayashi as reciting the term “container.” However, the phrase “container” in claim 27 is included in all-inclusive listing of variant and divergent groups such as “tools” and “sporting goods.” The phrase “industrial applicability,” as relied on by the Office, is equally broad and overly generic. There is no additional definition in Sanbayashi as to what “industrial applicability” means or to which fields of art or desired structural, chemical, or functional attributes it is referring to.

Accordingly, Applicants submit that both cited phrases are nothing more than generic phrases that are not probative of anything, much less sufficient to support an allegation that one skilled in the art would be motivated to select its teachings in combination with the cited primary references of record, a required tenet of 35 U.S.C. § 103.

Ultimately, it is Applicants’ position that one having ordinary skill in the art would not be led to Sanbayashi because it is both irrelevant to the cited primary references and is devoid of any relevant disclosure that could be considered to provide motivation to select its teachings.

In view of the above, Applicants respectfully request the Office to remove the Sanbayashi reference.

With respect to Cassar, Applicants recognize that Cassar is cited by the Office as teaching a titanium doped-Fe(III), and was not cited for teaching the particular titanium dioxide concentration, which was allegedly supplied by Sanbayashi. Thus, Cassar is linked to Sanbayashi inasmuch as if Sanbayashi is removed, Cassar also becomes irrelevant.

As discussed above, Applicants submit that Sanbayashi is not relevant to the present application and should thus be removed. Accordingly, Applicants respectfully request the Office to remove the Cassar reference as well.

In view of the deficiencies of the above references, several elements of the claimed biodegradable bowl are no longer adequately or properly supported by the cited prior art, which, either alone or in combination, does not teach each and every element of the present claims.

Nevertheless, in the interest of compacting prosecution, Applicants amend independent claims 1, 16, and 32-37 herein to further clarify one aspect of the invention by replacing “comprising” with “consisting essentially of.” It is Applicants’ position that the currently amendment claims properly define over the art.

As yet an additional means to demonstrate the patentability of the presently claimed invention, Applicants supplement the previously-submitted data in the specification and § 1.132 Declaration (submitted with the December 15, 2009 Amendment) with an additional Declaration under 37 C.F.R. § 1.132, concurrently submitted herewith in an effort to more convincingly demonstrate the both the unexpectedly superior properties of the presently claimed biodegradable starch bowl and its unexpected properties therein.

In accordance with the Office's suggestion, the concurrently submitted § 1.132 Declaration provides additional data points, including Examples having a preservative concentration of 0.4 wt% (see Tables 4 and 5) as well as Examples having a photocatalyst concentration of 2.0 wt% (see Tables 9 and 10).

As described in Declaration under 37 C.F.R. § 1.132, Applicants identified that the stench and the color change can be prevented by comprising potassium sorbate of more than 0.1 to less than 0.5 wt% or sodium benzoate of more than 0.2 or equal to less than 0.5 wt% in the composition. The stench, which refers to a nasty smell from the bowl aside from the peculiar smell of the starch, and the color change, which refers to the color of the bowl, is dark brown when compared to that of a standard composition, are both separate properties from the preservative property, and both are unexpected effects from the prior art.

Specifically, when the composition comprises potassium sorbate of more than 0.5 wt% or equal, the stench and the color change occur, even if the preservative property is sufficient for the biodegradable starch bowl. In addition, when the composition comprises less than 0.2 wt% sodium benzoate, the preservative property is not good, and when the composition comprises sodium benzoate of more than 0.5 wt% or equal, the stench and the color change occur, even if the preservative property is improved.

Accordingly, the present invention distinctly features a composition comprising the present amount of the preservative can exhibit stench prevention and color change while maintaining its preservative property.

In the present Action, Sullivan is cited as allegedly disclosing preservatives such as sodium benzoate without actually disclosing or even recognizing the criticality of a specified range. However, in view of the results in the attached § 1.132 Declaration, Applicants submit

that the presently claimed range is sufficiently probative of the unexpected stench and deodorizing results of the present invention, which is clearly not recognized by Sullivan.

For at least the reasons discussed above, Applicants respectfully request the Office to withdraw the rejections over Bastioli, George, Sanbayashi, Matsuda, Cassar, Sullivan, Andersen, and Shogren.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number **202-775-7588**.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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CUSTOMER NUMBER

Date: July 30, 2010

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